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K. Chad Burgess  
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April 24, 2007

**VIA HAND DELIVERY**

The Honorable Charles Terreni  
Chief Clerk/Administrator  
South Carolina Public Service Commission  
101 Executive Center Drive (29210)  
Post Office Drawer 11649  
Columbia, South Carolina 29211

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RE: Petition of the Office of Regulatory Staff to Establish Dockets to Consider Implementing the Requirements of Section 1252 (Smart Metering) of the Energy Policy Act of 2005  
Docket No. 2005-386-E

Dear Mr. Terreni:

Enclosed for filing on behalf of South Carolina Electric & Gas Company, Progress Energy Carolinas, Incorporated, and Duke Energy Corporation, is the direct testimony of Dr. Julius A. Wright. Please accept the original and twenty-five (25) copies of this testimony for filing. Additionally, please acknowledge your receipt of this document by file-stamping the extra copy that is enclosed and returning it to me via our courier.

By copy of this letter, we are serving all other parties of record with a copy of the enclosed direct testimony and attach a certificate of service to that effect.

If you have any questions regarding this matter, please do not hesitate to contact me.

Very truly yours,

K. Chad Burgess

KCB/kms

Enclosures

cc: Nanette S. Edwards, Esquire  
Shannon Bowyer Hudson, Esquire  
(All via hand delivery w/enclosures)

Catherine E. Heigel, Esquire  
Len S. Anthony, Esquire  
Scott Elliott, Esquire  
(All via first-class mail w/enclosures)

Sherry A. Quirk, Esquire  
Montina A. Cole, Esquire  
Judith Kim, Esquire

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**BEFORE THE**  
**PUBLIC SERVICE COMMISSION OF**  
**SOUTH CAROLINA**  
**DOCKET NO. 2005-386-E**

FILED  
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SOUTH CAROLINA  
PUBLIC SERVICE COMMISSION

Petition of the Office of Regulatory Staff to Establish )  
Dockets to Consider Implementing the Requirements of )  
Section 1252 (Smart Metering) of the Energy Policy )  
Act of 2005 )  
\_\_\_\_\_ )

**CERTIFICATE  
OF SERVICE**

This is to certify that I have caused to be served this day one (1) copy of the  
**Direct Testimony of Dr. Julius A. Wright** via U.S. Mail to the persons named below at  
the addresses set forth:

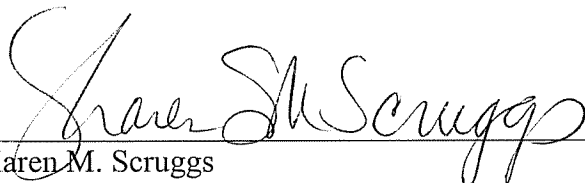
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\_\_\_\_\_  
Karen M. Scruggs

Columbia, South Carolina  
This 24<sup>th</sup> day of April 2007

**BEFORE THE  
PUBLIC SERVICE COMMISSION OF  
SOUTH CAROLINA**

**DOCKET NO. 2005-386-E**

Petition of the Office of Regulatory Staff to Establish )  
Dockets to Consider Implementing the Requirements of )  
Section 1252 (Smart Metering) of the Energy Policy )  
Act of 2005 )  
\_\_\_\_\_ )

**CERTIFICATE  
OF SERVICE**

This is the certify that I have caused to be served this day five (5) copies of the  
**Direct Testimony of Dr. Julius A. Wright** via hand delivery to the persons named  
below at the addresses set forth:

Nanette S. Edwards, Esquire  
Shannon Bowyer Hudson, Esquire  
Office of Regulatory Staff  
1441 Main Street, Suite 300  
Columbia, South Carolina 29201

  
\_\_\_\_\_  
Karen M. Scruggs

Columbia, South Carolina  
This 24<sup>th</sup> day of April 2007

1 **BEFORE THE PUBLIC SERVICE COMMISSION**  
2 **OF SOUTH CAROLINA**

3  
4 **Docket No. 2005-386-E**

5  
6 **In Re:**

7 )  
8 **In the Matter of Considering** )  
9 **Implementation of The Requirements** )  
10 **Of Section 1252 (Smart Metering) of** )  
11 **The Energy Policy Act of 2005** )  
12  
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17

**DIRECT TESTIMONY OF**  
**JULIUS A. WRIGHT, Ph.D.**

**April 24, 2007**

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**DIRECT TESTIMONY OF  
JULIUS A. WRIGHT, Ph.D.**

**ON BEHALF OF SOUTH CAROLINA ELECTRIC & GAS COMPANY,  
DUKE ENERGY CAROLINAS, AND PROGRESS ENERGY CAROLINAS**

**PSCSC DOCKET No. 2005-386-E**

**I. INTRODUCTION**

1   **Q.     PLEASE STATE YOUR NAME, TITLE AND BUSINESS ADDRESS.**

2   **A.**           My name is Julius A. Wright, President, J. A. Wright & Associates, LLC., 3037  
3           Loridan Way, Atlanta, Georgia 30339

5   **Q.     FOR WHOM ARE YOU PRESENTING TESTIMONY IN THIS DOCKET?**

7   **A.**           I am presenting testimony on behalf of South Carolina Electric & Gas Company,  
8           ("SCE&G"), Duke Energy Carolinas, LLC ("Duke") and Carolina Power and Light  
9           Company, d/b/a Progress Energy Carolinas, Inc. ("Progress") or collectively referred to as  
10          the "Companies".

1   **Q.   PLEASE SUMMARIZE YOUR EDUCATION AND PROFESSIONAL**  
2   **EXPERIENCE.**

3  
4   **A.**           I received a Bachelor of Science degree in Chemistry from Valdosta State College  
5           in 1974. I later earned an MBA in Finance from Georgia State University in Atlanta,  
6           Georgia, a Masters and Ph.D. in Economics from North Carolina State University, where I  
7           focused on regulatory and environmental economics. I have completed the Michigan State  
8           Regulatory Course, several NARUC courses on regulation, and various management and  
9           investment seminars.

10           I am the President of J. A. Wright & Associates, LLC. Prior to starting my practice,  
11           I was a Client Partner for AT&T Solutions, Utilities and Energy Practice. Before that  
12           affiliation, I was a Utility Consultant for three years with EDS. Prior to that I was a  
13           Commissioner on the North Carolina Utilities Commission. I also served three terms in the  
14           North Carolina State Senate. During the time that I was a Senator, I was also a Senior  
15           Process Engineer with Corning Glass in its Fiber Optic Division. Prior to my work at  
16           Corning, I worked for four years in the chemical industry, first as a Process Chemist and  
17           later as a Senior Project Engineer.

18           In the course of my consulting work, I have addressed various regulatory issues,  
19           including: integrated resource planning; regulatory strategies for dealing with the transition  
20           to competitive electric and telecommunications markets; issues related to potentially  
21           strandable costs; prudence reviews; avoided cost determinations; rate forecasting; gas  
22           integrated resource planning; and, electric utility telecommunications strategies.

23           From 1985 to 1993, in my role as a commissioner on the North Carolina Utilities

1 Commission I was involved in numerous electric, gas, telecommunications, water utility  
2 issues and decisions. My detailed resume is provided as Exhibit JAW-1.

3  
4 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

5  
6 **A.** The purpose of my testimony is to address an issue raised by the Public Service  
7 Commission of South Carolina (the "Commission") in its January 17, 2006, Notice Of  
8 Filing in this docket. Specifically, this hearing is to consider whether or not it is appropriate  
9 to adopt the smart metering standard set forth in the Energy Policy Act of 2005 ("EPA  
10 2005"). (EPA 2005 referred to smart metering as time-based metering).

11  
12 **Q. WHAT IS YOUR RECOMMENDATION WITH REGARD TO THE TIME-BASED**  
13 **METERING STANDARD BEING ADDRESSED IN THIS PROCEEDING?**

14  
15 **A.** I agree with the testimony of Mr. Randy Watts of the Office of Regulatory Staff  
16 ("ORS") that the Companies already offer time-based metering tariffs similar to those being  
17 proposed by EPA 2005. Moreover, the policies of the State of South Carolina, along with  
18 the rules and various prior Orders of this Commission, demonstrate that these time-based  
19 tariffs meet the proposed new PURPA time-based metering standard that is the subject of  
20 this proceeding. I would add that this Commission, in this Docket in Order No. 2007-178,  
21 indicated that ninety-nine percent of South Carolina's customers of regulated utilities are  
22 presently offered time-of-use rates. Based on this evidence, I recommend that this

Commission find that the adoption of the EPA 2005 time-based metering standard is unnecessary and decline to adopt the proposal standard. In the following sections I will provide more detailed information supporting this recommendation.

## **II. BACKGROUND**

**Q. CAN YOU PROVIDE A HISTORICAL PERSPECTIVE ON THE INITIATION OF THIS PROCEEDING?**

**A.** Yes. The genesis of the current docket actually grew out of federal legislation and national energy initiatives begun in the 1970s. In 1978, the United States Congress passed the Public Utility Regulatory Policies Act of 1978 ("PURPA") the basic purpose of which was to foster conservation of electricity, promote more efficient production of electricity, and to promote among state utility regulators more consistent, and what many have termed, more equitable cost-based electric rate tariffs.<sup>1</sup> In promoting these goals, Title I of this 1978 law contained several standards to be considered, but not required to be adopted, by state regulatory commissions. These standards addressed such issues as (1) cost of service;

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<sup>1</sup> For example, see Bonbright, J. C, et. al., "Principles of Public Utility Rates," Public Utility Reports, Inc., Arlington, VA., 2<sup>nd</sup> Edition, 1988, pp 416, 477; Phillips, Charles, "The Regulation of Public Utilities," Public Utility Reports, Inc., Arlington, VA., 3<sup>rd</sup> Edition, 1993, pp 655-661.



1 (2) declining block rates; (3) time-of-use rates; (4) seasonal rates; (5) interruptible rates;  
2 and, (6) load management techniques.<sup>2</sup>

3 It is important to note that the adoption by state utility commissions of these new  
4 standards was optional, as clearly seen in the specific language of the law which stated,  
5 “each state regulatory authority (with respect to each electric utility for which it has  
6 ratemaking authority) and each nonregulated electric utility shall consider each standard”  
7 and then “make a determination concerning whether or not it is appropriate to implement  
8 such standard.” The statute went on to say that “nothing in this subsection prohibits any  
9 state regulatory authority or nonregulated electric utility from making any determination  
10 that it is not appropriate to implement any such standard.” There was also a “prior state  
11 action” provision that permitted States to consider prior actions that might have addressed  
12 the same issues and “grandfather” such actions in lieu of conducting an evidentiary hearing  
13 to address the proposed standards. Regardless of the action taken, States were required by  
14 the law to specify in writing the reasons for their decisions. In 1992, PURPA was amended  
15 by the Energy Policy Act of 1992 which added several additional standards to be  
16 considered. The issue in this docket has been generated by another amendment to PURPA  
17 contained in EPA 2005.

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<sup>2</sup> It should be noted that this 1978 PURPA law may be best known for its Title II, which encouraged increased use of cogeneration and small power producers.

1   **Q.     PLEASE EXPLAIN THE AMENDMENTS TO PURPA FROM EPA 2005 WHICH**  
2       **ARE THE BASIS OF THIS PROCEEDING.**

3  
4   **A.**       EPA 2005 amended PURPA requiring state regulatory authorities, with respect to  
5       electric utilities, to consider whether or not to adopt several new electric energy efficiency  
6       related standards. Among these standards, the one that is the focus of this proceeding is a  
7       time-based smart metering standard. The statutory text of the specific PURPA  
8       Amendments addressed in this proceeding is set forth in Section 1252, Exhibit JAW-2.

9  
10   **Q.    WITH RESPECT TO THE ISSUES INVOLVED IN THIS HEARING, WHAT**  
11       **SPECIFIC ACTION IS BEING REQUIRED OF STATE REGULATORS?**

12  
13   **A.**       Specifically, State regulatory commissions have a set period of time within which  
14       EPA 2005 requires that they begin consideration of the proposed new PURPA standards  
15       and an additional period of time in which they must complete their consideration and make  
16       a determination as to whether or not to adopt the standards. Section 111(b) of PURPA (see  
17       Exhibit JAW-3) requires state regulatory bodies to adhere to certain procedural guidelines  
18       in their consideration of the new standards. These include the requirement that the  
19       regulatory body's determination be made after public notice and a hearing, and that such  
20       determination be "based upon findings included in such determination and upon the  
21       evidence presented at the hearing." Moreover, if regulatory commissions decline to  
22       implement any of the proposed standards they must do so by specifying their decision and

1 reasoning in writing (see Exhibit JAW-3, PURPA section 111(c)). The current proceeding  
2 and any subsequent Commission Order should fully satisfy these timing and procedural  
3 requirements.

4  
5 **Q. YOU MENTIONED STATES HAD A DEADLINE FOR RESPONDING TO THE**  
6 **ISSUE THAT IS THE SUBJECT OF THIS PROCEEDING; WHAT ARE THOSE**  
7 **TIMING DEADLINES?**

8  
9 **A.** With respect to the time based metering standard, State commissions have until  
10 August 8, 2007 to begin consideration of the proposals. By August 8, 2008 they must  
11 complete their deliberations and issue an order on whether or not to adopt the federally  
12 proposed standard.

13  
14 **Q. PLEASE BRIEFLY DISCUSS HOW STATES RESPONDED TO THE EARLIER**  
15 **REQUIREMENTS OF PURPA.**

16  
17 **A.** Several of the energy efficiency standards contained in the original PURPA in 1978  
18 were adopted by state utility commissions. However, some standards were not adopted and  
19 after hearings, some states determined that they had already examined the issues and  
20 adopted comparable standards prior to the enactment of PURPA. For example, in South  
21 Carolina, this Commission in Docket No. 79-300-E, Order No. 80-474, Section XI, August  
22 29, 1980, found that Duke had adopted programs and tariffs essentially equivalent to  
23 PURPA's proposed standards on declining block rates, time-of-use rates, seasonal rates, and

1 load management. In this same Order the Commission declined to adopt the proposed  
2 lifeline rate. Consequently, this Commission, in evaluating earlier standards under  
3 PURPA, has both rejected certain proposed standards or in the alternative, concluded that  
4 the Commission and utilities had already undertaken activities essentially comparable to the  
5 proposed PURPA standards.

6  
7 **Q. WHAT IS REQUIRED UNDER EPA 2005 WITH RESPECT TO A PROCEEDING**  
8 **REGARDING THE PROPOSED TIME-BASED METERING STANDARD?**  
9

10 **A.** The proposed time-based metering standard, EPA 2005 (see Section 1252, JAW  
11 Exhibit-2) indicates that a state commission must have conducted a proceeding considering  
12 implementation of time-based metering within the previous three years before enactment of  
13 EPA 2005. Due to the fact that the Commission addressed the issue of time-based metering  
14 more than three years prior to the enactment of EPA 2005, the current proceeding is  
15 necessary to comply with EPA 2005.

1 **III. TIME-BASED METERING**

2

3 **Q. WHAT IS THE TIME-BASED METERING STANDARD STATE REGULATORS**  
4 **ARE BEING REQUIRED TO CONSIDER PURSUANT TO EPA 2005?**

5

6 **A.** Specifically, the new standard to be considered requires that “each electric utility  
7 shall offer each of its customer classes, and provide individual customers upon customer  
8 request, a time-based rate schedule under which the rate charged by the electric utility  
9 varies during different time periods and reflects the variance, if any, in the utility's costs of  
10 generating and purchasing electricity at the wholesale level. The time-based rate schedule  
11 shall enable the electric consumer to manage energy use and cost through advanced  
12 metering and communications technology” (Section 1252(a)(14)(A), Exhibit JAW-2).

13

14 **Q. PLEASE DEFINE “TIME-BASED METERING” AS PROPOSED BY EPA 2005.**

15

16 **A.** The proposed standard for consideration suggests an appropriate definition by  
17 providing a list of the kinds of tariff offerings that would be considered time-based rates  
18 with these rate schedules possibly being supported by time-based metering (see Exhibit  
19 JAW-2). This includes:

- 20
- 21 • time-of-use pricing where the electricity prices are set for specific time periods,  
22 typically not changing more often than twice a year and based on the utility's cost,

1 where such pricing allows customers to vary their usage and thus manage their  
2 energy costs in response to these prices,

- 3 • critical peak pricing whereby time-of-use prices are in effect except for certain peak  
4 days when the cost of the electricity consumed is at its peak and when consumers  
5 may receive discounts for reducing their peak period consumption;
- 6 • real-time pricing whereby electricity prices reflecting, as often as hourly, the utility's  
7 cost of the electricity consumed; and
- 8 • “credits for consumers with large loads who enter into pre-established peak load  
9 reduction agreements that reduce a utility's planned capacity obligations.”

10  
11 From these examples it is clear the proposed standard envisions time-based metering as  
12 essentially time-based pricing plans. The standard goes on to propose that “Each electric  
13 utility subject to subparagraph (A) shall provide each customer requesting a time-based rate  
14 with a time-based meter capable of enabling the utility and customer to offer and receive  
15 such rate, specifically.”

16  
17 **Q. ARE THERE ANY SOUTH CAROLINA LAWS THAT SPECIFICALLY ADOPT A**  
18 **POLICY RELATED TO TIME-BASED METERING OR TIME-BASED RATES?**

19  
20 **A.** Yes, South Carolina Code Ann. § 58-27-840 provides that “ Subject to the approval  
21 of the Commission, however, electrical utilities, distribution electric cooperatives and  
22 consolidated political subdivisions may establish classifications of rates and services and  
23 such classifications may take into account the conditions and circumstances surrounding the

1 service, *such as the time when used*, the purpose for which used, the *demand upon plant*  
2 *facilities, the value of the service rendered* and any other reasonable consideration”  
3 (emphasis added). One intent of this statute is clearly to provide the Commission with  
4 sufficient authority to adopt time-based rates.

5  
6 **Q. WITH RESPECT TO TIME-BASED RATES OR METERING, HOW HAS THE**  
7 **COMMISSION ADDRESSED THESE POLICY OBJECTIVES?**

8  
9 **A.** The South Carolina Commission and the Companies have been actively promoting  
10 time-based rates for at least the last two plus decades. For example, Progress was among  
11 the first utilities in the country to consider time-rated rates when in June 1977 it participated  
12 in a Federal Energy Administration demonstration program. This project involved the use  
13 of fourteen distinct time-based rates designs to consider residential customers’ response to  
14 time-differentiated pricing. The project led to the introduction of voluntary time-based  
15 rates for all residential and small general service beginning in 1982 (Docket No. 81-163-E,  
16 Order No. 82-284), and for large general service in 1983 (Docket No. 82-328-E, Order No.  
17 83-583). As early as 1977 Duke (Docket No. 77-2-E, Order No. 77-690, October 11, 1977)  
18 implemented a time-of-use rate schedule for a limited number of residential, general  
19 service, and industrial customers. In 1980 Duke began to expand this time-of-use program  
20 on a more system-wide basis including all three classes of customers (Docket No. 79-300-  
21 E, Order 80-474, August 29, 1980; Docket No. 80-15-E, Order No. 80-57, Jan. 28, 1980;  
22 and later in Docket No. 81-111-E, Order No. 80-374, May 20, 1981). SCE&G began

1 offering time-of-use rates at least as early as 1982 (Docket No. 81-72-E, order No. 82-212,  
2 April 1, 1982).

3  
4 **Q. PLEASE DISCUSS THE TIME-BASED RATES AVAILABLE FROM THE**  
5 **COMPANIES TODAY.**

6  
7 **A.** All three Companies offer voluntary time-based rates for virtually every customer,  
8 including residential, commercial, and industrial. Furthermore, these rate options for some  
9 customers can be supplemented by more advanced metering with some communication  
10 capabilities. Referring to the suggested time-based metering definitions in EPA 2005, one  
11 type of time-based rate structure would have pricing, known by customers, where the  
12 electricity prices are set for specific time periods, typically not changing more often than  
13 twice a year. For residential customers, Duke's Tariff RT(SC), SCE&G's Rate 5, and  
14 Progress Energy's R-TOUD and R-TOUE comply with this definition. For general service  
15 and industrial customers, Duke's Tariff OPT, SCE&G's rates 16, 21, 21A, and 24, and  
16 Progress rates SGS-TOU, SGSTES, and LGS-TOU comply with this definition. These  
17 time-of-use rates, coupled with the Companies' curtailable load riders, meet the definition  
18 of critical peak pricing identified in EPA 2005 as another of the four time-based metering  
19 standards.

20 A third type of time-based rates suggested in the definition in EPA 2005 is pricing  
21 that reflects, as often as hourly, the utility's cost of the electricity consumed. Duke currently  
22 offers rate HPX, SCE&G rate 27, and Progress rate LGS-RTP, all of which are hourly, real  
23 time, pricing.



1           A fourth type of time-based rate offerings suggested by EPA 2005 is credits for  
2 consumers with large loads who enter into pre-established peak load reduction agreements  
3 that reduce a utility's planned capacity obligations. These types of load management  
4 programs are often referred to as curtailable or interruptible rates. From the reading of an  
5 earlier Order, all three Companies apparently had these type, and other, load management  
6 programs as early as the mid 1970s (see Docket No. 77-2-E, Order No. 77-799, Nov. 22,  
7 1977 – this Order mentions that each Company offered testimony indicating they already  
8 had some load management programs underway). Today, all three Companies continue to  
9 have interruptible, load curtailment tariffs that include credit for customers who reduce their  
10 load at critical times. For example, SCE&G's Tariffs 23 and 24 allow eligible customers to  
11 be provided service under an interruptible tariff structure. For Duke, their interruptible  
12 programs are found in tariffs LC, IS, SG, and CS. Progress Energy's interruptible tariffs  
13 are CL-4A, 58E, and schedule LGS-CUR-TOU-7 for general service customers.

14           In sum, all three Companies already offer a variety of time-based pricing and load  
15 control programs essentially identical to those suggested by EPA 2005.  
16

17 **Q.   HAVE THESE TIME-BASED RATE AND METERING OFFERINGS BEEN**  
18 **ACCEPTED AND USED BY THE COMPANIES' CUSTOMERS?**  
19

20 **A.**Yes. Currently, Progress has over 5,300 customers, Duke has approximately 4,500  
21 customers, and SCE&G over 800 customers taking advantage of these various time-of-use  
22 rates.  
23

1   **Q.   DO THE COMPANIES INCLUDE IN THEIR TIME-BASED RATE OFFERINGS**  
2       **ADDITIONAL OPTIONS SUCH AS SMART METERS?**

3  
4   **A.**       All three utilities currently offer more advanced metering technologies. At the  
5       residential level, this is primarily remote meter reading which is available for all residential  
6       and small commercial customers for Duke and Progress, and is being installed at SCE&G.  
7       For larger customers, there is more penetration of what some have termed smart meters (as  
8       characterized by two-way communication capability). For example, Duke has a program  
9       sending day-ahead pricing to larger customers signed onto this particular program. To the  
10      extent these customers can shift their load, on those days with high demand and thus high  
11      marginal energy costs, the customer can adjust their usage and reduce their electric bill  
12      significantly, while at the same time helping the Company conserve energy on peak demand  
13      days. Progress has a similar program using a computer based customer interface. All three  
14      Companies have metering capability to send load pulses from a customer's meter, assuming  
15      the customer has signed on and pays for this service, which the customer can use in its  
16      energy management up to and including customer initiated load control. This service is  
17      currently used by larger customers. Customers at all three utilities can also receive 15  
18      minute interval data about their energy usage, and this data is usually available on a next  
19      day basis, again a service subscribed to by larger commercial and industrial customers.  
20      However, it is important to note that any customer, including residential in many service  
21      areas, can receive a smart meter with some communication capability if that customer is  
22      willing to pay for this service. To date, because of the expense and lack of interest,  
23      essentially no residential customers have applied for these types of smart meters.

1   **Q.   FROM YOUR PERSPECTIVE, HAVE THE STATE AND THESE THREE**  
2       **COMPANIES ALREADY ADOPTED TIME-BASED RATES AND METERING**  
3       **STANDARDS COMPARABLE TO WHAT IS BEING PROPOSED FOR**  
4       **CONSIDERATION UNDER EPA 2005?**

5  
6   **A.**       Yes.   Similar to the conclusion reached by ORS witness Watts, time-based rates  
7       have been available in South Carolina for almost three decades and the Companies continue  
8       to update their time-of-use offerings, for example, with the hourly metering options now  
9       available.   In addition, the Companies offer advanced metering and interruptible load  
10      management options comparable to what has been suggested by the proposed standard.  
11      Therefore, based on the fact that time-based rates are available to virtually every customer  
12      of these utilities and that many have the capability to choose and pay for more advanced  
13      metering services, it is apparent that the Companies and this Commission have already  
14      adopted time-based rates and advanced metering objectives generally comparable to what is  
15      being proposed in this particular EPA 2005 standard.

16  
17  
18   **Q.   WHAT IS YOUR RECOMMENDATION WITH REGARD TO WHETHER OR**  
19       **NOT THIS COMMISSION SHOULD ADOPT THE TIME-BASED RATE**  
20       **STANDARD PROPOSED BY EPA 2005?**

21  
22   **A.**       I am in agreement with ORS witness Watts in that I believe adoption of this  
23       standard is unnecessary.   As I have shown in my testimony on this issue, the State and this

1 Commission have adopted and for many years been operating with time-based rates and  
2 various forms of load control and advanced metering devices. Therefore, I believe the  
3 Commission, similar to the 1978 PURPA standards, should find that the State and these  
4 utilities, for some period of time, have been operating with time-based rates and advanced  
5 metering standards generally comparable to what is being proposed in this particular EPA  
6 2005 standard. Furthermore, based on these prior and ongoing initiatives, I recommend  
7 that the Commission decline to adopt the EPA 2005 time-based metering standard.  
8

9 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

10  
11 **A.** Yes.  
12  
13

1  
2  
3  
4  
5  
6  
7  
8  
9

## **EXHIBIT JAW-1**

1 Julius A. "Chip" Wright is the President of J. A. Wright and Associates, 3037 Loridan Way,  
2 Atlanta, GA, 30339; 770-956-1225; [jawright@mindspring.com](mailto:jawright@mindspring.com).

3  
4 Experience Overview

5 Prior to starting his firm, Dr. Wright was a Client Partner for AT&T Solutions Utilities and Energy  
6 Practice and before that a Principal in EDS' Management Consulting Services. Dr. Wright has  
7 been consulting electric gas, and telephone utilities on regulation, economics, rates, production  
8 modeling and strategic planning for the past three years. Prior to this Dr. Wright served an eight-  
9 year term as a Utility Commissioner for the state of North Carolina. Prior to that he served three  
10 terms in the North Carolina State Senate while he was a senior project engineer for Corning Glass  
11 Works on their optical wave guide project in Wilmington, North Carolina. He has a total of 14  
12 years' government-related experience, 12 years' plant-related engineering experience, and he has  
13 established two companies.

14 While serving on the North Carolina Utility Commission, he served four years on the National  
15 Association of Regulatory Utility Commissioners (NARUC) Electricity Committee. He has served  
16 in various other advisory capacities, including the Keystone Committee on Externalities; the  
17 North Carolina Radiation Protection Committee, and on an Oversight Committee for a joint North  
18 Carolina/New York/ Department of Energy (DOE) project.

19  
20 Dr. Wright has also served on the Southern States Energy Board Task Force on Restructuring the  
21 Electric Utility Industry.

22 **Electric Competition Natural Gas, and Regulatory Strategy**

- 23 • *"Energy Deregulation,"* March 2001, report of the California State Auditor on the causes of the  
24 problems related to high electric prices and blackouts (from May, 2000 through June 2001, and  
25 ongoing) in California's restructured electric marketplace. Dr. Wright was one of three  
26 consultants who essentially researched and prepared the State Auditor's report.
- 27 • Principal author with Dr. Al Danielsen of *"Reliability of Electric Supply In Georgia,"* published  
28 by The Bonbright Utilities Center, University of Georgia, June, 2001.
- 29 • Presented testimony before the North Carolina Public Utilities Commission on behalf of  
30 SCANA Corporation regarding issues related to market power in its merger with Public  
31 Service Company of North Carolina, Docket No. G-5, Sub 400; G-3, Sub 0.
- 32 • Was the principal author of a report and investigation titled *"An Analysis of Commonwealth*  
33 *Edison's Planning Process For Achieving Reliability of Supply,"* which was an investigation of the  
34 Company's planning process to meet its statutory obligation for supplying electricity as  
35 Illinois transitions to a competitive retail electric market, Illinois Commerce Commission  
36 Docket No. 98-0514.

- 1 • Co-authored a national study that used computer modeling techniques to quantify the impact  
2 of electric competition on the aggregate economy in each of the 48 continental United States.
- 3 • Presented testimony to Louisiana Legislative Committee on behalf of Entergy Corporation  
4 regarding the various regulatory and technical issues that need to be addressed in the  
5 transition to competition.
- 6 • Presented testimony For Virginia Power with regard to its transition to competition plan.
- 7 • Testified before the Mississippi Public Service Commission on issues related to the  
8 establishment of retail electric competition, including ISO establishment, regional power  
9 exchanges, legislation, taxes and regulatory policies.
- 10 • Presented testimony for Entergy Corp. in both Louisiana and Arkansas in support of its  
11 transition to competition filing.
- 12 • Worked with three major southeastern utilities on developing business and regulatory  
13 strategy as they prepare for competition.
- 14 • Filed a report with the South Carolina Legislature that studied the impact of electric  
15 competition on the state of South Carolina.
- 16 • Was a panelist on a Southern Gas Association national televised forum on performance based  
17 regulation for the natural gas industry.
- 18 • Was the lead policy witness for South Carolina Electric and Gas on obtaining regulatory  
19 approval to transfer depreciation reserve from a nuclear plant to T&D depreciation reserve.  
20 This is a critical issue in preparing for competition and limiting stranded investment.
- 21 • Developed regulatory and marketing strategy for ENTERGY with regard to its  
22 telecommunications initiatives. In these efforts he worked with the EDS Telecommunications  
23 Consulting Group.
- 24 • Led an analysis of the prudence of Central Vermont Public Service Company's power and  
25 resource acquisitions over a five year period. The prudence of this utility's power supply  
26 strategy was under investigation in a rate case proceeding. Dr. Wright's team filed testimony  
27 supporting the Company and their efforts were instrumental in undermining the charges of  
28 imprudence brought by the Company's opposition.
- 29 • Developed an EDS intra-company task force to address the issues related to FERC's  
30 Transmission NOPR. This task force subsequently filed three responses to FERC's Open  
31 Access NOPR which provide a basis for EDS to maintain a leadership position as the electric  
32 utility industry undergoes restructuring to a competitive market.
- 33 • Helped develop a regulatory strategy and presented testimony on behalf of South Carolina  
34 Pipeline. In this case, an economic analysis prepared by Dr. Wright and Dr. Frank Cronin  
35 (from EDS Economic Planning and Analysis Consulting Group) was presented along with

1 recommendations. Their analysis and recommendations were generally accepted by the  
2 Commission staff.

### 3 **Resource Planning & Economic Analysis**

4 As a Commissioner he has been involved in a variety of resource planning issues including  
5 chairing the last North Carolina Resource Planning hearing that involved Duke Power Company,  
6 Carolina Power and Light, Virginia Power Company and the North Carolina Electric Membership  
7 Corporation.

8 He was also selected by the states of North Carolina and New York and the Department of Energy  
9 to be one of five representatives on a peer review panel overseeing a Resource Planning project  
10 being conducted by the Oak Ridge National Laboratories.

11 In addition to these initiatives Dr. Wright has:

- 12 • Was the principal author of a report and investigation titled "*An Analysis of Commonwealth*  
13 *Edison's Planning Process For Achieving Reliability of Supply*," which was an investigation of the  
14 Company's planning process to meet its statutory obligation for supplying electricity as  
15 Illinois transitions to a competitive retail electric market, Illinois Commerce Commission  
16 Docket No. 98-0514.
- 17 • Was the lead policy witness for South Carolina Electric and Gas on obtaining regulatory  
18 approval to transfer depreciation reserve from a nuclear plant to T&D depreciation reserve.  
19 This is a critical issue in preparing for competition and limiting stranded investment.
- 20 • Was instrumental in acquiring a large engagement for a major southeastern utility examining  
21 their competitive position as it relates to a competitive electric market. During the  
22 engagement he provided input and guidance on regulatory issues related to the deregulation  
23 of the electric industry.
- 24 • Assisted Carolina Power and Light Company in their integrated resource planning process by  
25 advising and facilitating a Commission directed public policy panel.
- 26 • Developed an overview of Niagara Mohawk Gas' integrated resource planning efforts. This  
27 engagement was under a contract from Oak Ridge National Laboratories.

### 28 **Cost of Service, Rate Design, Forecasting**

29 While serving more than eight years on the North Carolina Commission, Dr. Wright was involved  
30 in several cost of service and rate design analyses, testimonies, and orders. This included work in  
31 electric, telephone, gas, and water utilities. Additionally, he has presented testimony on  
32 performance based ratemaking and he has been involved in analyzing electric utility forecasting  
33 models, including end-use models, regression analysis (both linear and nonlinear) and customer  
34 discrete choice modeling forecasts. Furthermore, Dr. Wright's Ph.D. is in environmental and  
35 regulatory economics with special research into nonlinear minimal cost optimization procedures



for electric utility production models. This work included optimizing investments, optimal regulatory regimes, pricing, cost recovery, and rate of return issues.

In addition, he has:

- Provided an economic analysis of the proper regulatory regime for South Carolina Pipeline Company. In this analysis he presented testimony supporting performance based rate making and his recommendations were generally accepted by the Commission staff.
- Developed forecasted rates for two New York state utilities. These rates were developed to support a bond filing by a cogenerator.
- Provided a forecast of power payments from New York State Electric and Gas (NYSEG) to two independent power producers (IPPs). This forecast was used to estimate the level of overpayments by NYSEG to these IPPs, under PURPA regulations, which he used in a filing before FERC supporting the company's claim of unlawful overpayments.

### **Telecommunications**

As a Commissioner he has regulated all types of telecommunications providers for eight years. In addition, he has worked with two electric utilities in strategy formulation in regard to their entering the telecommunications business. Furthermore, he has eight years experience as a fiber optic engineer.

### **Other Areas of Expertise**

Prior to joining EDS, he worked for eight years as a senior process engineer for Corning Glass in the design and production of optical waveguides (or fiber optics). Prior to that he worked for four years in the chemical industry as a process chemist and later as a senior project engineer. He has done work in environmental monitoring, process and product improvement, plant utilization, as well as starting and selling two successful companies – one in the financial leasing business and the other in the entertainment industry.

### **Presentations and Publications**

*"Energy Deregulation,"* March 2001, report of the California State Auditor on the causes of the problems related to high electric prices and blackouts (from May, 2000 through June 2001, and ongoing) in California's restructured electric marketplace. Dr. Wright was one of three consultants who essentially researched and prepared the State Auditor's report.

"Low Cost States and Electric Restructuring - The Issue is the Price!" presented to the 1999 Miller Forum on Government, Business and the Economy, University of Southern California, April 19, 1999.

1    *An Analysis of Commonwealth Edison's Planning Process For Achieving Reliability of Supply*, Illinois  
2    Commerce Commission Docket No. 98-0514.

3

4    *The Impact of Competition on the Price of Electricity*, author, published by L. A. Wright and  
5    Associates, November, 1998.

6

7    "Retail Competition in the Electric Industry: The Impact on Prices," presented at the 18<sup>th</sup> Annual  
8    Bonbright Center Energy Conference, Atlanta, Georgia, Sept. 10, 1998.

9    *Potential Economic Impacts of Restructuring the Electric Utility Industry*, co-author, published by the  
10   Small Business Survival Committee, Washington, DC, November, 1997.

11   "How Deregulation Will Affect Power Quality and Energy Management," presented at the Power  
12   Quality and Energy Management Conference co-sponsored by Entergy and EPRI, New Orleans,  
13   LA, Nov. 14, 1997.

14   "Deregulation of the Electric Industry," *Proceedings: National Business Energy Forum*, June 26, 1997,  
15   New Orleans, LA.

16   "A Different View of the Market," presented at the Southeastern Electric Exchange Conference,  
17   June 25, 1997, Charlotte, N.C.

18   "Restructuring The Electric Utility Industry: Theory vs. Reality," presented at the American Bar  
19   Association Restructuring Conference, Raleigh, NC, Dec. 5, 1996.

20   "Restructuring: The Best Approach for Virginia," presented at the Virginia State Corporation  
21   Commission Electricity Restructuring Forum, Charlottesville, VA, Nov. 15, 1996.

22   "Alternative Rate Making for the Natural Gas Industry: State Issues," presented at the Tenth  
23   Annual NARUC Biennial Regulatory Information Conference, Columbus, Ohio, Sept. 12, 1996.

24   "RetailCo: To Regulate or Not?" presented at the 9<sup>th</sup> Annual Automatic Meter Reading  
25   Symposium, New Orleans, La., Sept. 10, 1996.

26   "Convergence: The Competitive Revolution Comes To Electric Power," presented to the  
27   Southeastern Association of Regulatory Commissioners Annual Convention, Point clear,  
28   Alabama, June 4, 1996.

29   "Stranded Assets Recovery Issues," presented at the Western Electric Power Institute: Financial  
30   Forum, Tucson, Arizona, March 8, 1996.

31   "The Deregulation of the Electric Utility Industry : Current Status," presented at the North  
32   Carolina Economic Developers Association Midwinter Conference, Pinehurst, N.C., February 23,  
33   1996.

- 1 "Performance Based Regulation for The Natural Gas Industry," panelist on Southern Gas  
2 Association's Televised Regulatory Forum, Dallas, Texas, Jan. 18, 1996.
- 3 "Industry Structure Should Meet Stakeholder Objectives," *Electric Light and Power*, Jan., 1996.
- 4 "Quantifying the Value of Stranded Investment: A Dynamic Modeling Approach," *Proceedings:*  
5 *Implementing Transmission Access and Power Transactions Conference*, Denver, Colorado, Dec. 14,  
6 1995.
- 7 "Quantifying the Value of Stranded Investment: A Dynamic Modeling Approach," at the 15<sup>th</sup>  
8 Annual Bonbright Center Electric and Natural Gas Conference, October 9-11, 1995, Atlanta,  
9 Georgia.
- 10 Comments to FERC in the matter of Notice of Proposed Rulemaking on Open Access, Docket No.  
11 95-9-000, 1995.
- 12 "The Road to Competition for Re-Regulated Industries," presented at the 1995 PROMOD users  
13 Forum, St. Petersburg, Florida, May 1, 1995.
- 14 "Comparing New York State Electric and Gas Corporation's Non-Utility Generator Payments to Current  
15 Avoided Cost Rates," report submitted in support of affidavit filed before FERC in Docket No. EL  
16 95-28-000.
- 17 "A Solution To The Transmission Pricing and Stranded Investment Problems" *Public Utilities*  
18 *Fortnightly*, January 1995.
- 19 "Electric Utility Competition: The Winning Focus," presented at 1994 Southeastern Electric and  
20 Natural Gas Conference, Atlanta, Georgia, October 1994.
- 21 "Gas Integrated Resource Planning: The Niagara Mohawk Experience," for Martin Marietta Energy  
22 Systems, Inc., under contract to the United States Department of Energy, ORNL/SUB/93-03369.
- 23 "Future Regulation In the Water Industry - Can We Solve the Problems Before They Happen?"  
24 *Water*, Vol. 29, No. 2, pp. 14-17, Summer 1988.
- 25 "The Regulatory Process - Historical and Today," presented at Carolina Power and Light  
26 Company's IRP Public Participation Committee Seminar, June 1994.
- 27 "The Regulatory Role In DSM: Who Pays?" presented at Carolina Power and Light Company's  
28 IRP Public Participation Committee Seminar, June 1994.
- 29 "The Regulatory Process In North Carolina," North Carolina Telephone Association, June 1991.

30 **Testimony**

- 31 • Provided both Direct and Rebuttal Testimony for Duke Energy, Progress North Carolina, and Dominion  
32 Resources in their 2005 North Carolina Integrated Resource Planning Hearing, Docket No E100 Sub  
33 103, June, 2006.

- 1 • Provided testimony for Georgia Power in its 2005 Fuel Adjustment Hearing on the issue of the  
2 appropriate pricing methodology for the dispatch and sale of electricity in the Southern Company  
3 system, Docket number 19142-U, April, 2005.
- 4
- 5 Presented testimony before the North Carolina Public Utilities Commission on behalf of SCANA  
6 Corporation regarding issues related to market power in its merger with Public Service Company  
7 of North Carolina, Docket No. G-5, Sub 400; G-3, Sub 0.
- 8 Presented testimony before the South Carolina Public Service Commission on behalf of South  
9 Carolina Pipeline Corporation regarding issues related to its annual review of gas costs as  
10 reflected in its purchase gas adjustment charge, Docket No. 1999-007-G, September, 1999.
- 11 Presented testimony before the Arkansas Public Service Commission on behalf of Entergy  
12 Arkansas, Inc. regarding regulatory policies related to the definition of public utilities as it impacts  
13 citing requirements of non-utility owned generating facilities, Dockets No. 98-337-U, March 9,  
14 1999.
- 15 Presented Rebuttal and Surrebuttal testimony before the Louisiana Public Service Commission on  
16 behalf of Entergy Louisiana, Inc. and Entergy Gulf States regarding regulatory policies related to  
17 stranded cost recovery and on the issue of whether investors have been compensated for the risk  
18 of not recovering stranded costs, Dockets Nos. U-22092SC and U-20925, September, 1998.
- 19 Presented testimony to the South Carolina Public Utility Commission for South Carolina Pipeline  
20 Corp. related to acquisition adjustments and regulatory policies related to performance based  
21 regulation, Docket No. 90-588-G, June, 1998.
- 22 Testified before the Mississippi Public Service Commission on issues related to the establishment  
23 of retail electric competition, including ISO establishment, regional power exchanges, legislation,  
24 taxes and regulatory policies, April 16, 17, 1997.
- 25 Support of Transition Proposals filed by Virginia Power Corporation, March, 1997.
- 26 Entergy Arkansas testimony in support of Transition to Competition Filing, 1997.
- 27 Entergy Louisiana testimony in support of Transition to Competition Filing, 1997.
- 28 Support of Performance Based Regulation for GTE South Inc., Docket No. P-19, Sub 277, before the  
29 North Carolina Utility Commission, filed Nov. 22, 1995.
- 30 Stranded Cost Regulatory Policy and Recovery Testimony before the South Carolina Public  
31 Service Commission, the Commission approved the request Dr. Wright was advocating, Docket  
32 No. 95-1000-E, October 27, 1995.
- 33 Performance based rate making mechanism and rate levels, testimony on behalf of South Carolina  
34 Pipeline Corporation, Docket No. 90-588-G, filed August 3, 1995.

1 Prudence Review of Power Resource Planning for Central Vermont Public Service Company,  
2 Docket No. 5724, September 7, 1994.

3 Rebuttal testimony on behalf of Central Vermont Public Service Company, Docket 5724,  
4 September 7, 1994.

5 Surrebuttal testimony on behalf of Central Vermont Public Service Company, Docket No. 5724,  
6 September 9, 1994.

7

8 Education

9 Dr. Wright received a Ph.D. in Economics from North Carolina State University, focusing on  
10 regulatory and environmental economics, and is a member of the honor society.

11 He received an MBA in finance from Georgia State University in 1978, graduating with honors.

12 He received a Master of Economics from North Carolina State University in 1991 and was a  
13 member of the honor society.

14 He received a B.S. in Chemistry from Valdosta State College in Valdosta, Georgia, graduating  
15 Magna Cum Laud.

16 In addition, he has completed the Michigan State University Regulatory Course, several other  
17 NARUC courses on regulation, been an instructor on regulatory issues at several NARUC courses,  
18 completed management courses at Corning Glass and financial seminars at Bank Boston and  
19 Merrill Lynch dealing with regulation.

20

21

22

23

## **JAW EXHIBIT JAW-2**

### **SEC. 1251. NET METERING AND ADDITIONAL STANDARDS.**

"(12) FUEL SOURCES.-Each electric utility shall develop a plan to minimize dependence on 1 fuel source and to ensure that the electric energy it sells to consumers is generated using a 2 divergent range of fuels and technologies, including renewable technologies.

"(13) FOSSIL FUEL GENERATION EFFICIENCY.-Each electric utility shall develop and 10 implement a 10-year plan to increase the efficiency of its fossil fuel generation."

#### **(b) COMPLIANCE.-**

(1) TIME LIMITATIONS.-Section 112(b) of the Public Utility Regulatory Policies Act of 1978 15 (16 U.S.C. 2622(b)) is amended by adding at the end the following:

"(3)(A) Not later than 2 years after the enactment of this paragraph, each State regulatory authority 18 (with respect to each electric utility for which it has ratemaking authority) and each nonregulated 19 electric utility shall commence the consideration referred to in section 111, or set a hearing date for 20 such consideration, with respect to each standard established by paragraphs (11) through (13) of 21 section 111(d).

"(13) Not later than 3 years after the date of the enactment of this paragraph, each State 24 regulatory authority (with respect to each electric utility for which it has rate-making authority), 25 and each nonregulated electric utility, shall complete the consideration, and shall make the 26 determination, referred to in section 111 with respect to each standard established by paragraphs 27 (11) through (13) of section 111(d)." 28

1 (2) FAILURE TO COMPLY.-Section 112(c) of the Public Utility Regulatory Policies Act of 1978  
2 (16 U. S.C. 2622^(c)) is amended by adding at the end the following:

3  
4 "In the case of each standard established by paragraphs (11) through (13) of section 111(d), the  
5 reference contained in this subsection to the date of enactment of this Act shall be deemed to be a  
6 reference to the date of enactment of such paragraphs (11) through (13).

7  
8 (3) PRIOR STATE ACTIONS.-

9  
10 (A) IN GENERAL.-Section 112 of the Public Utility Regulatory Policies Act of 1978 (16  
11 U.S.C. 2622) is amended by adding at the end the following:

12  
13 "(d) PRIOR STATE ACTIONS.-Subsections (b) and (c) of this section shall not apply to the  
14 standards established by paragraphs (11) through (13) of section 111(d) in the case of any electric  
15 utility in a State if, before the enactment of this subsection -

16  
17 "(1) the State has implemented for such utility the standard concerned (or a comparable  
18 standard);

19  
20 "(2) the State regulatory authority for such State or relevant nonregulated electric utility has  
21 conducted a proceeding to consider implementation of the standard concerned (or a comparable  
22 standard) for such utility; or

23  
24 "(3) the State legislature has voted on the implementation of such standard (or a comparable  
25 standard) for such utility."

26  
27 (B) CROSS REFERENCE.-Section 124 of such Act (16 U.S.C. 2634) is amended by adding the  
28 following at the end thereof. "In the case of each standard established by paragraphs (11) through  
29 (13) of section 111(d), the reference contained in this subsection to the date of enactment of this

1 Act shall be deemed to be a reference to the date of enactment of such paragraphs (11) through  
2 (13).

3  
4  
5 **SEC. 1252. SMART METERING.**  
6

7 (a) IN GENERAL.-Section 111(d) of the Public Utilities Regulatory Policies Act of 1978 (16  
8 U.S.C. 2621 (d)) is amended by adding at the end the following:

9  
10 “(14) TIME-BASED METERING AND COMMUNICATIONS.-  
11

12 “(A) Not later than 18 months after the date of enactment of this paragraph, each electric utility  
13 shall offer each of its customer classes, and provide individual customers upon customer request, a  
14 time-based rate schedule under which the rate charged by the electric utility varies during different  
15 time periods and reflects the variance, if any, in the utility's costs of generating and purchasing  
16 electricity at the wholesale level. The time-based rate schedule shall enable the electric consumer  
17 to manage energy use and cost through advanced metering and communications technology.  
18

19 “(B) The types of time-based rate schedules that may be offered under the schedule referred to in  
20 subparagraph (A) include, among others---

21  
22 “(i) time-of-use pricing whereby electricity prices are set for a specific time period on an advance  
23 or forward basis, typically not changing more often than twice a year, based on the utility's cost of  
24 generating and/or purchasing such electricity at the wholesale level for the benefit of the consumer.  
25 Prices paid for energy consumed during these periods shall be pre-established and known to  
26 consumers in advance of such consumption, allowing them to vary their demand and usage in  
27 response to such prices and manage their energy costs by shifting usage to a lower cost period or  
28 reducing their consumption overall;  
29



1 “(ii) critical peak pricing whereby time-of-use prices are in effect except for certain peak days,  
2 when prices may reflect the costs of generating and/or purchasing electricity at the wholesale level  
3 and when consumers may receive additional discounts for reducing peak period energy  
4 consumption;

5  
6 “(iii) real-time pricing whereby electricity prices are set for a specific time period on an advanced  
7 or forward basis, reflecting the utility's cost of generating and/or purchasing electricity at the  
8 wholesale level, and may change as often as hourly; and

9  
10 “(iv) credits for consumers with large loads who enter into pre-established peak load reduction  
11 agreements that reduce a utility's planned capacity obligations.

12  
13 “(C) Each electric utility subject to subparagraph (A) shall provide each customer requesting a  
14 time-based rate with a time-based meter capable of enabling the utility and customer to offer and  
15 receive such rate, specifically.

16  
17 “(D) For purposes of implementing this paragraph, any reference contained in 8 shall be deemed to  
18 be a reference to the date of enactment of this paragraph.

19  
20 “(E) In a State that permits third-party marketers to sell electric energy to retail electric  
21 consumers, such consumers shall be entitled to receive the same time-based metering and  
22 communications device and service as a retail electric consumer of the electric utility.

23  
24 “(F) Notwithstanding subsections (b) and (c) of section 112, each State regulatory authority shall,  
25 not later than 18 months after the date of enactment of this paragraph conduct an investigation in  
26 accordance with section II 5(i) and issue a decision whether it is appropriate to implement the  
27 standards set out in subparagraphs (A) and (C).”.

28  
29 (b) STATE INVESTIGATION OF DEMAND RESPONSE AND TIME-BASED

1 METERING.-Section 115 of the Public Utilities Regulatory Policies Act of 1978 (16 U.S.C. 2625)  
2 is amended as follows:

3  
4 (1) By inserting in subsection (b) after the phrase "the standard for time-of-day rates established by  
5 section 111(d)(3)" the following: "and the standard for time-based metering and communications  
6 established by section 111(d)(14)".

7  
8 (2) By inserting in subsection (^b) after the phrase "are likely to exceed the metering" the  
9 following: "and communications".

10  
11 (3) By adding at the end the following:

12  
13 “(i) TIME-BASED METERING AND COMMLTNICATIONS.-In making a determination with  
14 respect to the standard established by section 111 (d)(I 4), the investigation requirement of section  
15 111(d)(14)(F) shall be as follows: Each State regulatory authority shall conduct an investigation  
16 and issue a decision whether or not it is appropriate for electric utilities to provide and install time-  
17 based meters and communications devices for each of their customers which enable such customers  
18 to participate in time-based pricing rate schedules and other demand response programs.”.

19  
20 (c) FEDERAL ASSISTANCE ON DEMAND RESPONSE.-Section 132(a) of the Public  
21 Utility Regulatory Policies Act of 1978 (16 U.S.C. 2642(a)) is amended by striking "and" at the end  
22 of paragraph (3), striking the period at the end of paragraph (4) and inserting "; and", and by adding  
23 the following at the end thereof: "(5) technologies, techniques, and rate-making methods related to  
24 advanced metering and communications and the use of these technologies, techniques and methods  
25 in demand response programs.”.

26  
27 (d) FEDERAL GUIDANCE - Section 132 of the Public, Utility Regulatory Policies Act of 1978 (I  
28 6 U.S.C. 2642) is amended by adding the following at the end thereof:

29  
30 "(d) DEMAND RESPONSE-The Secretary shall be responsible for-

"(1) educating consumers on the availability, advantages, and benefits of advanced metering and communications technologies, including the funding of demonstration or pilot projects;

“(2) working with States, utilities, other energy providers and advanced metering and communications experts to identify and address barriers to the adoption of demand response programs; and

"(3) not later than 180 days after the date of enactment of the Energy Policy Act of 2005, providing Congress with a report that identifies and quantifies the national benefits of demand response and makes a recommendation on achieving specific levels of such benefits by January 1, 2007.".

(e) DEMAND RESPONSE AND REGIONAL COORDINATION.-

(1) TN GENERAL - It is the policy of the United States to encourage States to coordinate, on a regional basis, State energy policies to provide reliable and affordable demand response services to the public.

(2) TECHNICAL ASSISTANCE.-The Secretary of Energy shall provide technical assistance to States and regional organizations formed by 2 or more States to assist them in-

(A) identifying the areas with the greatest demand response potential;

(B) identifying and resolving problems in transmission and distribution networks, including through the use of demand response;

(C) developing plans and programs to use demand response to respond to peak demand or emergency needs; and

1 (D) identifying specific measures consumers can take to participate in these demand response  
2 programs.

3  
4 (3) REPORT - Not later than 1 year after the date of enactment of the Energy Policy Act of 2005,  
5 the Commission shall prepare and publish an annual report, by appropriate region, that assesses  
6 demand response resources, including those available from all consumer classes, and which  
7 identifies and reviews-

8  
9 (A) saturation and penetration rate of advanced meters and communications technologies, devices  
10 and systems;

11  
12 (B) existing demand response programs and time-based rate programs;

13  
14 (C) the annual resource contribution of demand resources;

15  
16 (D) the potential for demand response as a quantifiable, reliable resource for regional planning  
17 purposes;

18  
19 (E) steps taken to ensure that, in regional transmission planning and operations, demand resources  
20 are provided equitable treatment as a quantifiable, reliable resource relative to the resource  
21 obligations of any load-serving entity, transmission provider, or transmitting party; and

22  
23 (F) regulatory barriers to improved customer participation in demand response, peak reduction and  
24 critical period pricing programs.

25  
26 (f) FEDERAL ENCOURAGEMENT OF DEMAND RESPONSE DEVICES.-It is the policy of the  
27 United States that time-based pricing and other forms of demand response, whereby electricity  
28 customers are provided with electricity price signals and the ability to benefit by responding to  
29 them, shall be encouraged, the deployment of such technology and devices that enable electricity  
30 customers to participate in such pricing and demand response systems shall be facilitated, and

unnecessary barriers to demand response participation in energy, capacity and ancillary service markets shall be eliminated. It is further the policy of the United States that the benefits of such demand response that accrue to those not deploying such technology and devices, but who are part of the same regional electricity entity, shall be recognized.

(g) TIME LIMITATIONS.-Section 112(b) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622(b)) is amended by adding at the end the following:

"(4)(A) Not later than 1 year after the enactment of this paragraph, each State regulatory authority (with respect to each electric utility for which it has ratemaking authority) and each nonregulated electric utility shall commence the consideration referred to in section 111, or set a hearing date for such consideration, with respect to the standard established by paragraph (14) of section 111(d).

"(13) Not later than 2 years after the date of the enactment of this paragraph, each State regulatory authority (with respect to each electric utility for which it has ratemaking authority), and each nonregulated electric utility, shall complete the consideration, and shall make the determination, referred to in section 111 with respect to the standard established by paragraph (14) of section 111(d)."

(h) FAILURE TO COMPLY.-Section 112(c) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622(c)) is amended by adding at the end the following:

"In the case of the standard established by paragraph (14) of section 111(d), the reference contained in this subsection to the date of enactment of this Act shall be deemed to be a reference to the date of enactment of such paragraph (14). "

(i) PRIOR STATE ACTIONS REGARDING SMART METERING STANDARDS.-

(1) IN GENERAL - Section 112 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622) is amended by adding at the end the following:

1 "(e) PRIOR STATE ACTIONS - Subsections (b) and (c) of this section shall not apply to the  
2 standard established by paragraph (14) of section 111(d) in the case of any electric utility in a State  
3 if, before the enactment of this subsection -

4  
5 "(1) the State has implemented for such utility the standard concerned (or a comparable standard);

6  
7 "(2) the State regulatory authority for such State or relevant nonregulated electric utility has  
8 conducted a proceeding to consider implementation of the standard concerned (or a comparable  
9 standard) for such utility within the previous 3 years; or

10  
11 "(3) the State legislature has voted on the implementation of such standard (or a comparable  
12 standard) for such utility within the previous 3 years."

13  
14 (2) CROSS REFERENCE.-Section 124 of such  
15 Act (16 U.S.C. 2634) is amended by adding the following at the end thereof. "In the case of the  
16 standard established by paragraph (14) of section 111(d), the reference contained in this subsection  
17 to the date of enactment of this Act shall be deemed to be a reference to the date of enactment of  
18 such paragraph (14)."

1  
2  
3 **JAW EXHIBIT JAW-3**  
4

5 **Subtitle B – Standards for Electric Utilities**

6 **16 U.S.C. § 2621. (PURPA SECTION 111) Consideration and determination respecting**  
7 **certain ratemaking standards**

8 (a) Consideration and determination

9 Each State regulatory authority (with respect to each electric utility for which it has ratemaking  
10 authority) and each nonregulated electric utility shall consider each standard established by  
11 subsection (d) of this section and make a determination concerning whether or not it is appropriate  
12 to implement such standard to carry out the purposes of this chapter. For purposes of such  
13 consideration and determination in accordance with subsections (b) and (c) of this section, and for  
14 purposes of any review of such consideration and determination in any court in accordance with  
15 section 2633 of this title, the purposes of this chapter supplement otherwise applicable State law.  
16 Nothing in this subsection prohibits any State regulatory authority or nonregulated electric utility  
17 from making any determination that it is not appropriate to implement any such standard, pursuant  
18 to its authority under otherwise applicable State law.

19 (b) Procedural requirements for consideration and determination

20 (1) The consideration referred to in subsection (a) of this section shall be made after public  
21 notice and hearing. The determination referred to in subsection (a) of this section shall be—

22 (A) in writing,

23 (B) based upon findings included in such determination and upon the evidence presented at  
24 the hearing, and

25 (C) available to the public.

26 (2) Except as otherwise provided in paragraph (1), in the second sentence of section 2622  
27 (a) of this title, and in sections 2631 and 2632 of this title, the procedures for the  
28 consideration and determination referred to in subsection (a) of this section shall be those  
29 established by the State regulatory authority or the nonregulated electric utility.

30 (c) Implementation

31 (1) The State regulatory authority (with respect to each electric utility for which it has  
32 ratemaking authority) or nonregulated electric utility may, to the extent consistent with  
33 otherwise applicable State law—

1 (A) implement any such standard determined under subsection (a) of this section to be  
2 appropriate to carry out the purposes of this chapter, or

3 (B) decline to implement any such standard.

4 (2) If a State regulatory authority (with respect to each electric utility for which it has  
5 ratemaking authority) or nonregulated electric utility declines to implement any standard  
6 established by subsection (d) of this section which is determined under subsection (a) of this  
7 section to be appropriate to carry out the purposes of this chapter, such authority or  
8 nonregulated electric utility shall state in writing the reasons therefore. Such statement of  
9 reasons shall be available to the public.

10 (3) If a State regulatory authority implements a standard established by subsection (d)(7) or  
11 (8) of this section, such authority shall—

12 (A) consider the impact that implementation of such standard would have on small  
13 businesses engaged in the design, sale, supply, installation or servicing of energy  
14 conservation, energy efficiency or other demand side management measures, and

15 (B) implement such standard so as to assure that utility actions would not provide such  
16 utilities with unfair competitive advantages over such small businesses.